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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,531	08/23/2001	Simon Feldbaek Nielsen	2815-0172P	1443
2292	7590	02/01/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			COLEMAN, BRENDA LIBBY	
			ART UNIT	PAPER NUMBER
			1624	

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/934,531

Applicant(s)

NIELSEN ET AL.

Examiner

Brenda L. Coleman

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 17-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-19 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Claims 17-25 are pending in the application.

This action is in response to applicants' amendment filed November 16, 2004.

Claims 17-25 were amended.

### *Response to Arguments*

Applicants' arguments filed November 16, 2004 have been fully considered with the following effect:

1. The applicants' amendments and remarks are sufficient to overcome the 35 U.S.C. § 112, first paragraph rejection of claims 23-25, labeled paragraph 2) maintained in the last office action, which is hereby **withdrawn**.
2. The applicant's amendments and arguments are sufficient to overcome the 35 U.S.C. § 112, second paragraph rejections labeled paragraph 4r) maintained in the office action, which is hereby **withdrawn**.
3. The applicant's amendments and arguments are sufficient to overcome the 35 U.S.C. § 112, second paragraph rejections labeled a), b), c), d), e), f), g), h), i), j), k), m), n), o), p), q), ab), ac), ad), ae), af), ag), ah), ai), aj) and ak) of the office action, which are hereby **withdrawn**. However, with regards to the 35 U.S.C. § 112, second paragraph rejections labeled l), r), s), t), u), v), w), x), y), z) and aa) the applicant's amendments and remarks have been fully considered but they are not persuasive.
  - l) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 19 has not

Art Unit: 1624

been amended, such that the moiety  $R^1-R^1$ - fails to indicate the other point of attachment of the divalent moiety.

Claim 19 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

r) The applicants' stated that such terminology refers to quaternary ammonium type salts. Hackh's defines -onium as a suffix indicating a cation, with one or more proton than required to make a neutral molecule of the central atom. However, it is not known how R and/or  $R^1$  together with the nitrogen atom to which they are attached, represent an onium salts as claimed herein. At no time is  $R^1$  a hydrogen atom thus allowing for a protonated compound, nor is there any indication what the counter anion would be.

Claims 17-19 and 23-25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

s) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 19 has not been amended, such that the definition of ALK is a divalent moiety.

Claim 19 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

t) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety ethylenethio. Ethylene is a divalent moiety, so it is not known what is meant by ethylenethio.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

u) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety propylenethio. Propylene is a divalent moiety, so it is not known what is meant by propylenethio.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

v) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety butylenethio. Butylene is a divalent moiety, so it is not known what is meant by butylenethio.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

Art Unit: 1624

w) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety pentylenethio. Pentylene is a divalent moiety, so it is not known what is meant by pentylenethio.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

x) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety ethyleneseleno. Ethylene is a divalent moiety, so it is not known what is meant by ethyleneseleno.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

y) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety propyleneseleno. Propylene is a divalent moiety, so it is not known what is meant by propyleneseleno.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

z) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety butyleneseleno. Butylene is a divalent moiety, so it is not known what is meant by butyleneseleno.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

aa) The applicants' stated that the claims as amended satisfy the requirements of the second paragraph of the statute. However, claim 17 has not been amended with respect to the moiety pentyleneseleno. Pentylene is a divalent moiety, so it is not known what is meant by pentyleneseleno.

Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for reasons of record and stated above.

4. The applicant's amendments and arguments are sufficient to overcome the 35 U.S.C. § 102, anticipation rejection of claims 17 and 19, labeled paragraph 9) of the last office action, which is hereby **withdrawn**.

5. The applicant's amendments and arguments are sufficient to overcome the 35 U.S.C. § 102, anticipation rejection of claims 17, 19 and 23, labeled paragraph 10) of the last office action, which is hereby **withdrawn**.

6. The applicant's amendments and arguments are sufficient to overcome the 35 U.S.C. § 102, anticipation rejection of claims 17, 19 and 23, labeled paragraph 11) of the last office action, which is hereby **withdrawn**.

In view of the amendment dated November 16, 2004, the following new grounds of rejection apply:

***Priority***

7. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 21 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,



Art Unit: 1624

had possession of the claimed invention. The amendment to claims 21 and 22 are such that the specific species being claimed can form a dimer as defined in claim 17, however, the specific moiety 1-(6-bromo-5-methoxy-3-pyridyl)-homopiperazine is not described in the specification with respect to the dimers of formulae II, III and IV.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 17-19 and 23-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

- a) Claims 17, 19 and 23-25 are vague and indefinite in that it is not known what is meant by the definition of the substituents on the R<sup>1</sup> rings, where the substituent arylalkylthio appears twice.
- b) Claim 18 is vague and indefinite in that it is not known what is meant by the definition of R<sup>1</sup> where R<sup>1</sup> is 5-(N-2-pyrrolinyl)-3-pyridyl, 5-(N-3-pyrrolinyl)-3-pyridyl, 5-N-(1,4,5,6-tetrahydropyridyl)-3-pyridyl, 5-N-(1,2,5,6-tetrahydropyridyl)-3-pyridyl. It is not known if the pyrrolinyl and the tetrahydropyridyl rings are bound through the nitrogen atom or through the specified carbon atoms, i.e. the N atom or the 2 position for 5-(N-2-pyrrolinyl)-3-pyridyl, the N atom or the 3 position for 5-(N-3-pyrrolinyl)-3-pyridyl, the N atom for 5-N-(1,4,5,6-tetrahydropyridyl)-3-pyridyl, and the N atom for 5-N-(1,2,5,6-tetrahydropyridyl)-3-pyridyl.

***Claim Objections***

10. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda L. Coleman whose telephone number is 571-272-0665. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brenda L. Coleman  
Primary Examiner Art Unit 1624  
January 28, 2005